

Date: Thursday, 2/14/2008 11:01:30 AM  
 User: Kim Johnston

## Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: PANEL
Job Number	: 37440		
Estimate Number	: 10769		
P.O. Number	:	Part Number	: D33301
This Issue	: 2/14/2008 S.O. No. :	Drawing Number	: D3330 REV D
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: / / Type : SMALL /MED FAB	Drawing Revision	: D
Previous Run	: 35482	Material	:
Written By	:	Due Date	: 3/15/2008 Qty: 6 Um: Each
Checked & Approved By	: <u>1808 02 14</u>		
Comment	: Est: A 05.01.13 New issue KJ/JLM Est Rev: B Now on Waterjet 06-09-25 JLM est C 07.05.14 rev c dwg ec EST D 07.12.12 revD dwg EC verified by: DD		

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	M1010S125	1010-1025 sheet .125
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Comment: Qty.: 1.1445 sf(s)/Unit Total: 6.8670 sf(s)

1010-1025 sheet .125

Batch: 106140 IB 8-2-21

2.0	WATER JET	FLOW WATER JET
-----	-----------	----------------



Comment: FLOW WATER JET

1-Cut as per Dwg D3330

Dwg Rev: D IB 8-2-21Prog Rev: D (6)2-Deburr if necessary IB 8-2-21

3.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
-----	-----	--



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

4.0	QC8	SECOND CHECK
-----	-----	--------------



Comment: SECOND CHECK

5.0	BRAKE NC	NC BRAKE
-----	----------	----------



Comment: NC BRAKE

Form as per Dwg D3330

IB 08/03/01

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA:   D   Date: 08/03/12  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 2/14/2008 11:01:30 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: PANEL

Job Number: 37440

Part Number: D33301

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

JS 08/03/12 (46)

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: \_\_\_\_\_

ST 488

JS 08/03/12

(x6)

8.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

JS 08/03/12

(6)

Job Completion



JS 2008/3/12

(6)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	37440
<b>Description:</b> Panel		<b>Part Number:</b>	D3330-1
<b>Inspection Dwg:</b> D3330	<b>Rev:</b> 8 D 08.12.14	<b>Page 1 of 1</b>	

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.327	+0.006/-0.001	0.328	*			
16.66	+/-0.030	16.66	*			
1.69	+/-0.030	1.69	*			
4.646	+/-0.010	4.646	*			
0.750	+/-0.010	0.760	*			
6.77	+/-0.030	6.77	*			
10.41	+/-0.030	10.41	*			
6.45	+/-0.030	6.45	*			
6.000	+/-0.010	6.000	*			
2.000 Pitch	+/-0.010	2.000	*			
2.323	+/-0.010	2.321	*			
0.80	+/-0.030	0.80	*			

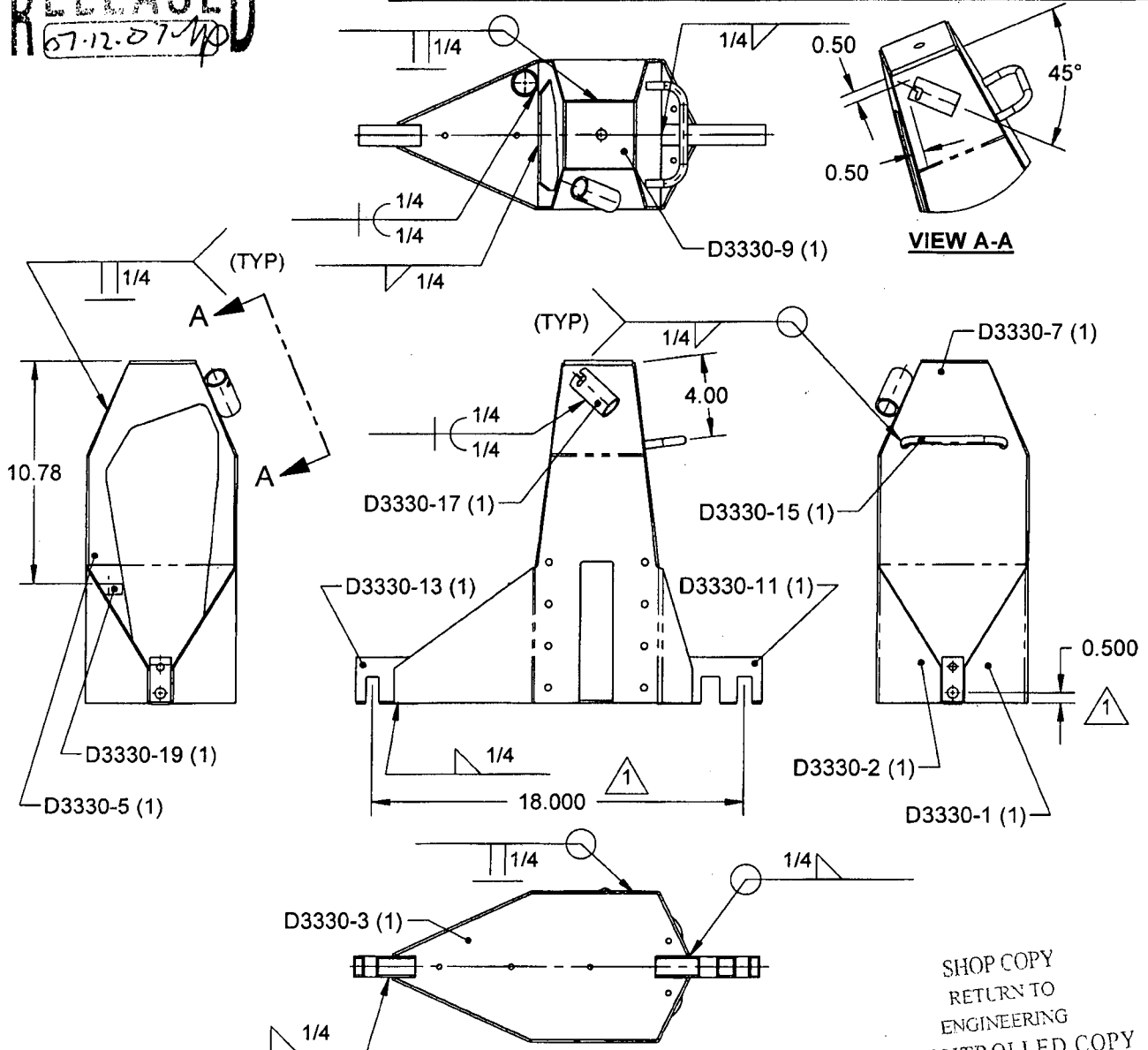
<b>Measured by:</b>	RB	<b>Audited by:</b>	[Signature]	<b>Prototype Approval:</b>	N/A
<b>Date:</b>	8-2-21	<b>Date:</b>	06-01-25	<b>Date:</b>	N/A

Rev	Date	Change	Revised by	Approved
A	06.10.27	New Issue	KJ/JLM	
B	07.05.16	Dwg Rev updated	KJ/EC [Signature]	[Signature]

[Signature]

**DART**

DESIGN <i>13</i>	DRAWN BY <i>DC</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>13</i>	APPROVED <i>W</i>	DRAWING NO. <b>D3330</b>	REV. D SHEET 1 OF 9
DATE <b>07.12.06</b>		TITLE <b>FRAME WELDMENT</b>	SCALE 1:8
REV	DATE	DESCRIPTION	
A	04.12.16	NEW ISSUE	
B	05.02.26	RE-DESIGN	
C	07.03.20	ADD 0.100 DIM; RAISED BEND OF -1/2 BY 0.125	
D	07.12.06	CHANGE DIMS ON D3330-9	

**RELEASED**  
07.12.07 *W***D3330-041 FRAME WELDMENT****NOTES:**

- 1) POSITION PARTS AS PER JIG D3330-041T1
- 2) WELD PER QSI 004
- 3) FINISH: POWDER COAT PAINT FIRE RED (4.3.5.10) PER DART QSI 005 4.3
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES 0.010 TO 0.020

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NO. *37440*

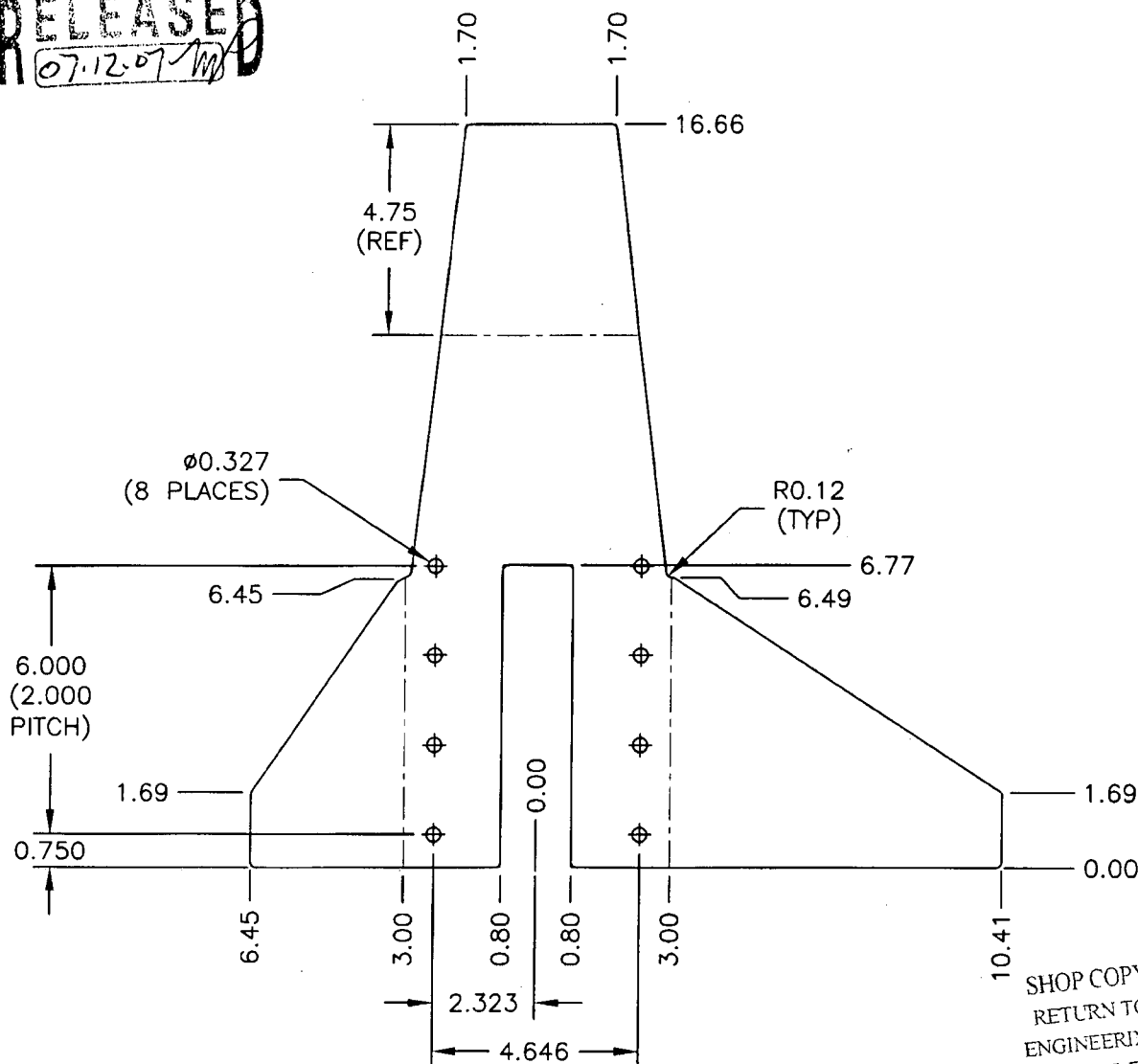
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DATE 07.12.06		TITLE FRAME WELDMENT	SCALE 1:4

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### D3330-1 PANEL

#### NOTES:

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 11 GAUGE (0.125 THICK)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

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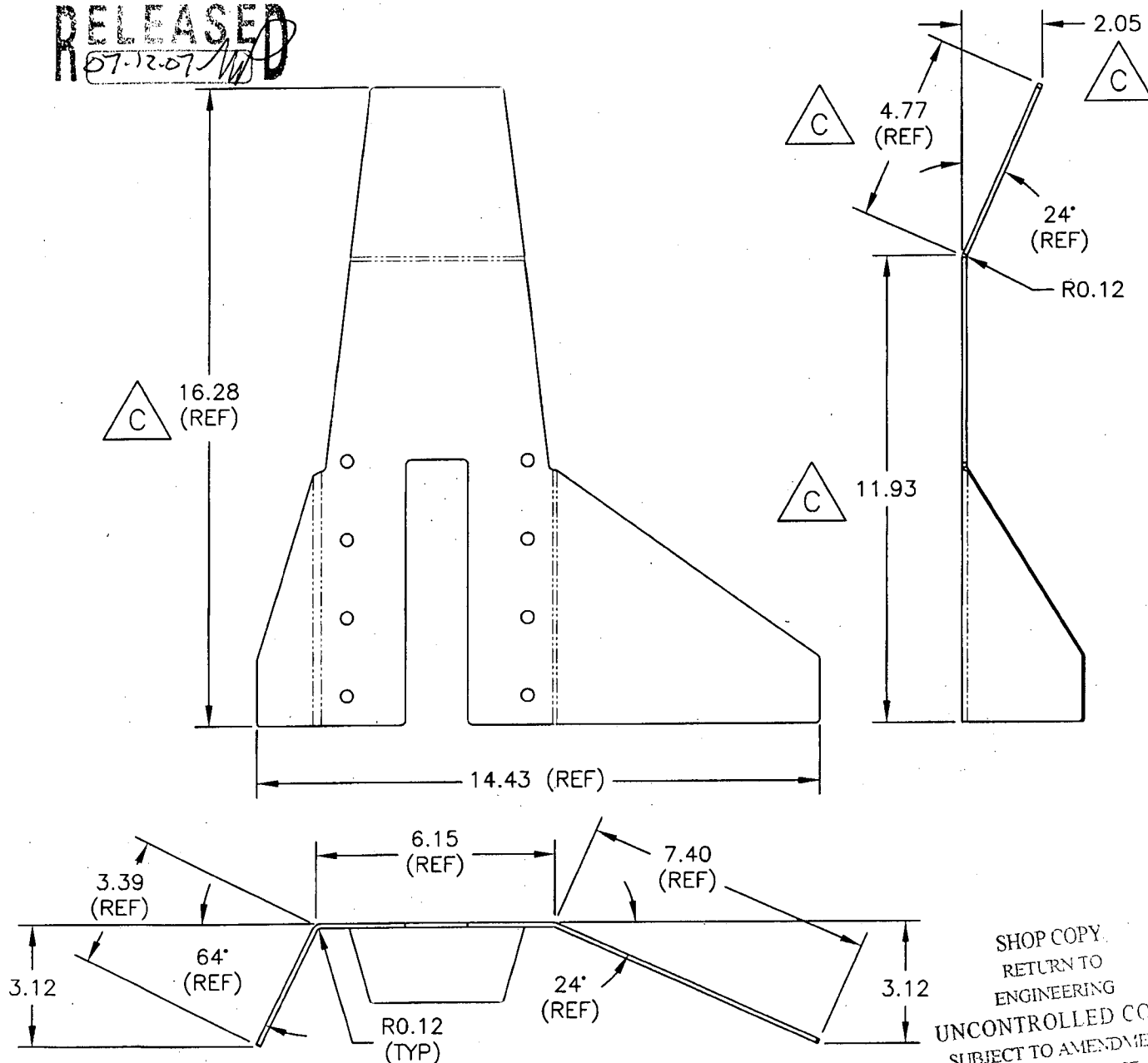
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DATE 07.12.06		TITLE FRAME WELDMENT	SCALE 1:4

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07-12-07



**D3330-1 BEND DETAIL (SHOWN)**  
BEND D3330-2 (OPPOSITE)

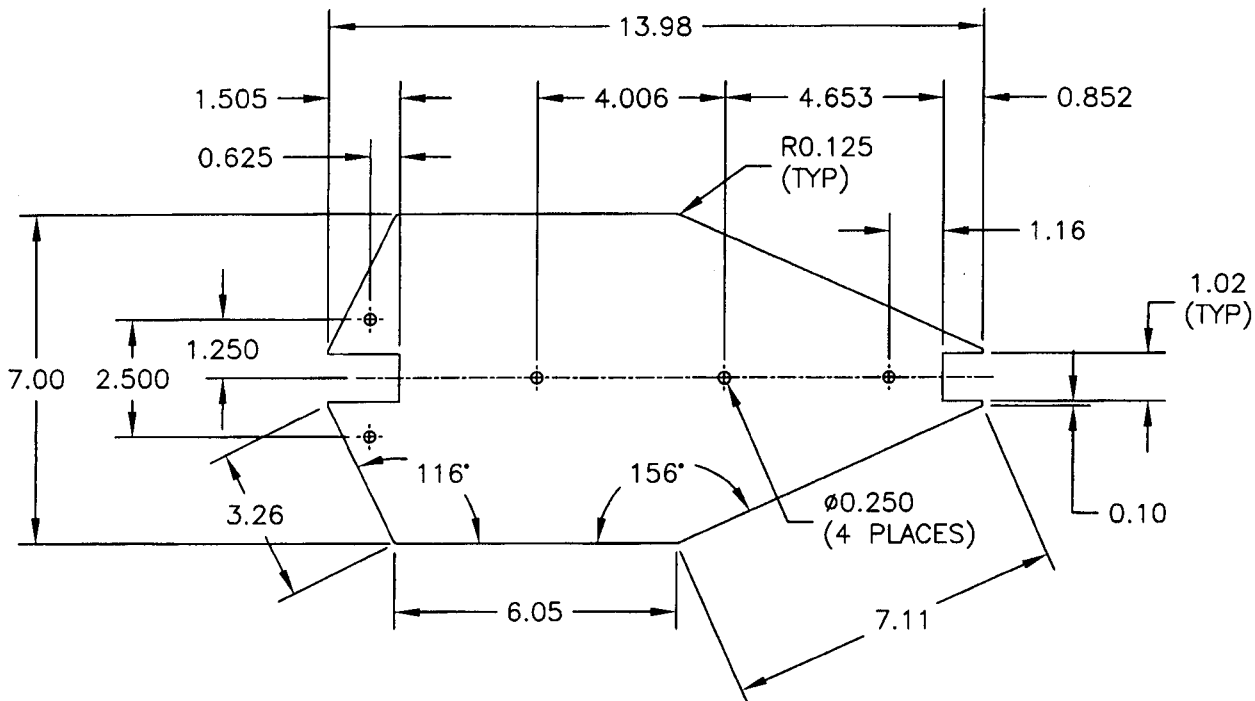
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DATE 07.12.06		TITLE FRAME WELDMENT	SCALE 1:4

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07.12.07



### D3330-3 PLATE

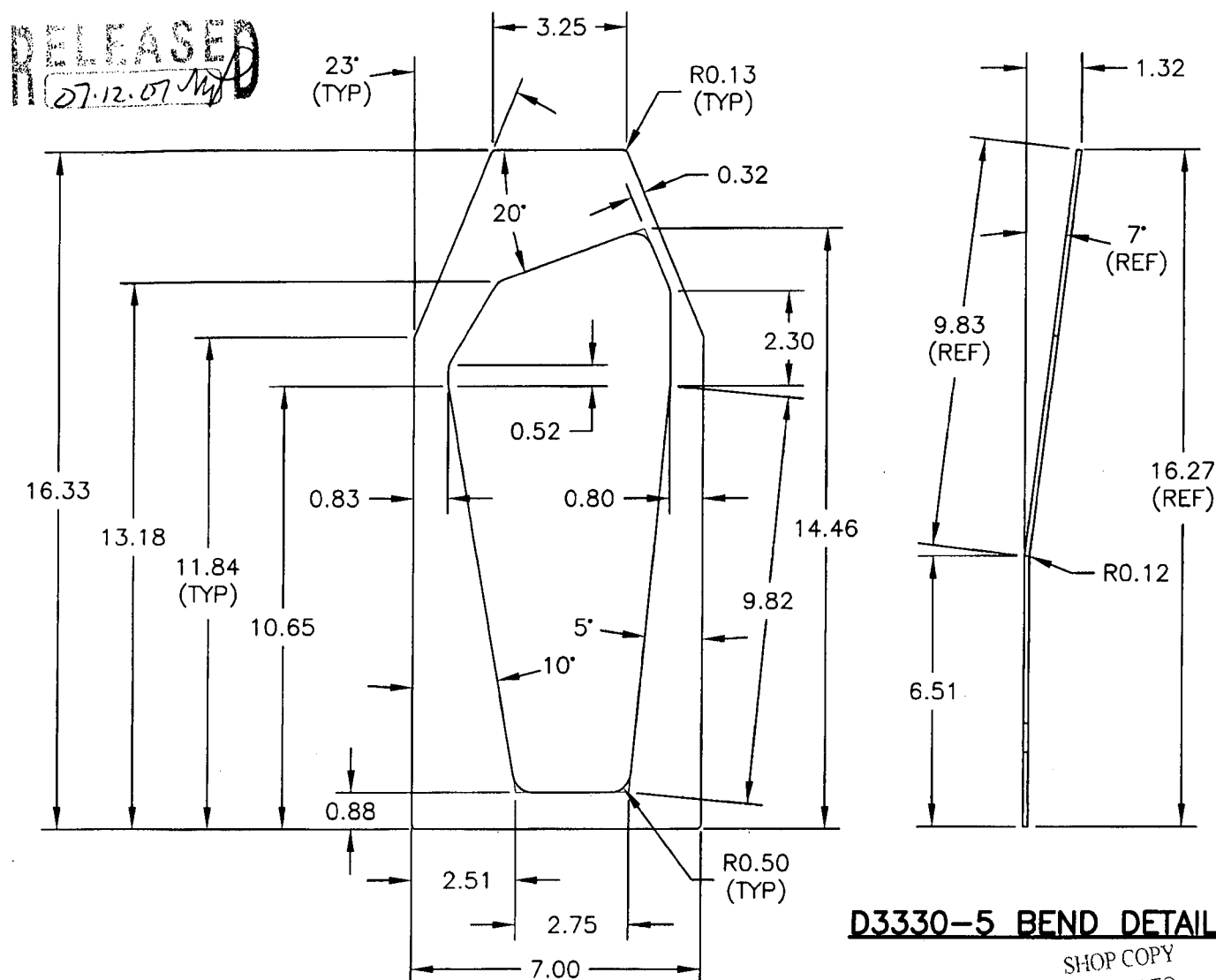
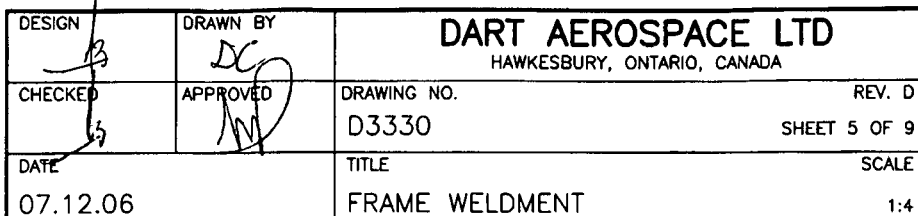
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#### NOTES:

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 11 GAUGE (0.125 THICK)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

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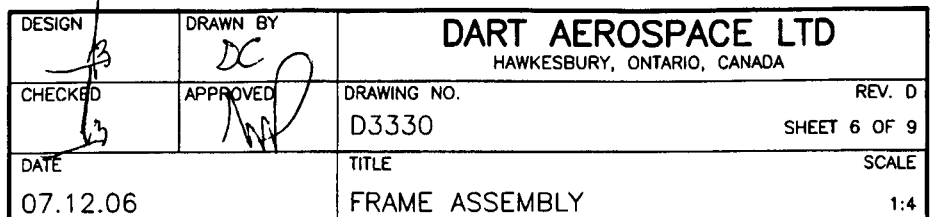


D3330-5 BEND DETAIL

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- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21,  
38W/44W/50W/60W/70W SERIES STEEL 11 GAUGE (0.125 THICK)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

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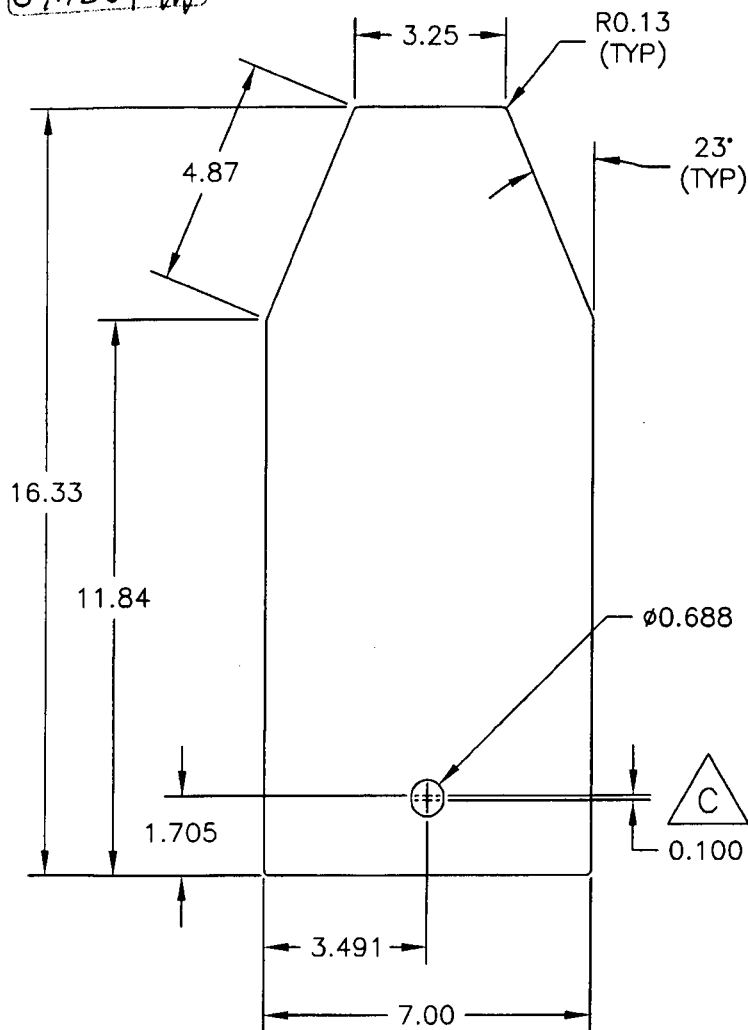


Figure 1 illustrates the geometry of the test specimen. The diagram shows a vertical central axis with a horizontal reference line. Key dimensions include a top horizontal offset of 1.32, a top vertical offset of 9.83 (REF), a top angle of 7° (REF), a bottom horizontal offset of 6.51, a bottom vertical offset of 16.27 (REF), and a bottom angle of R0.12.

**D3330-7 BEND DETAIL**

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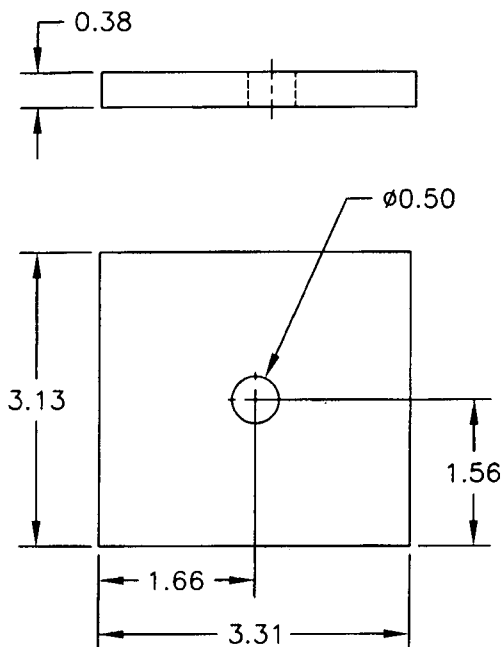
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38W/44W/50W/60W/70W SERIES STEEL 11 GAUGE (0.125 THICK)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

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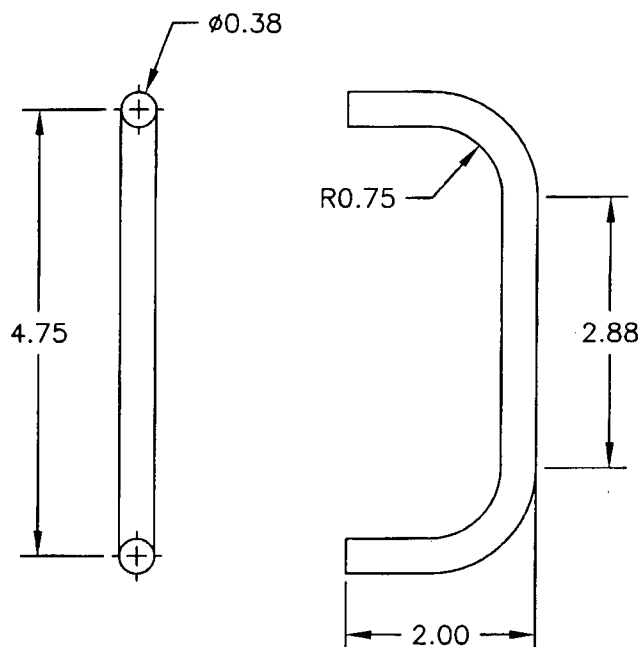


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DATE 07.12.06		TITLE FRAME WELDMENT	SCALE 1:2

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△ D3330-9 TOP PLATE



△ D3330-15 HANDLE

NOTES:

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008, 0.375 STEEL (REF. DART SPEC. M1010-B0.375x3.500)
- 2) MATERIAL: AISI 1018-1025 ROUND BAR PER MIL-S-7097 (REF. DART SPEC. M1018-R0.375)
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

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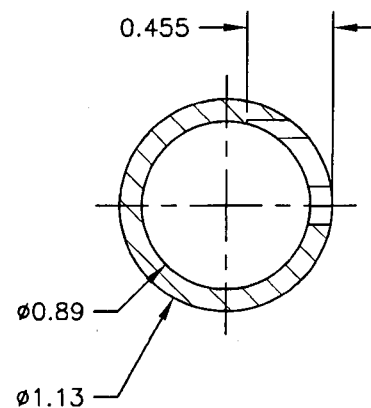
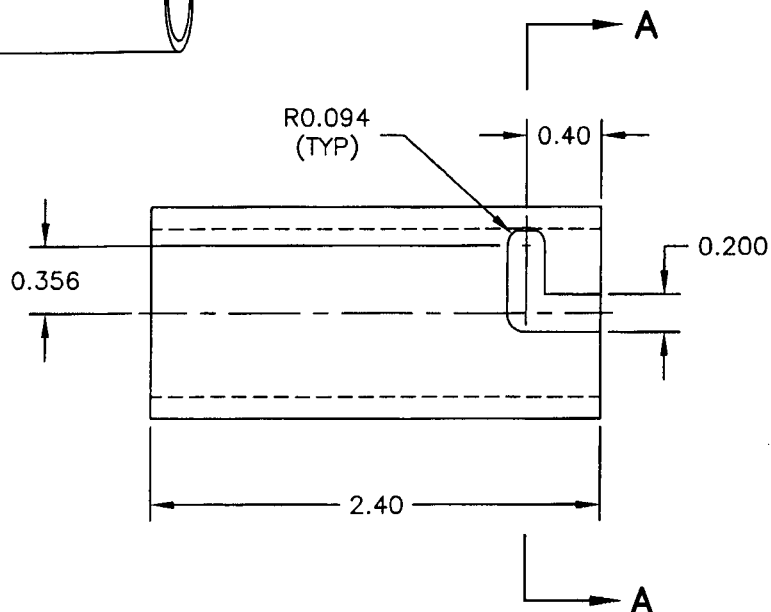
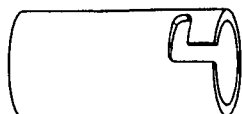
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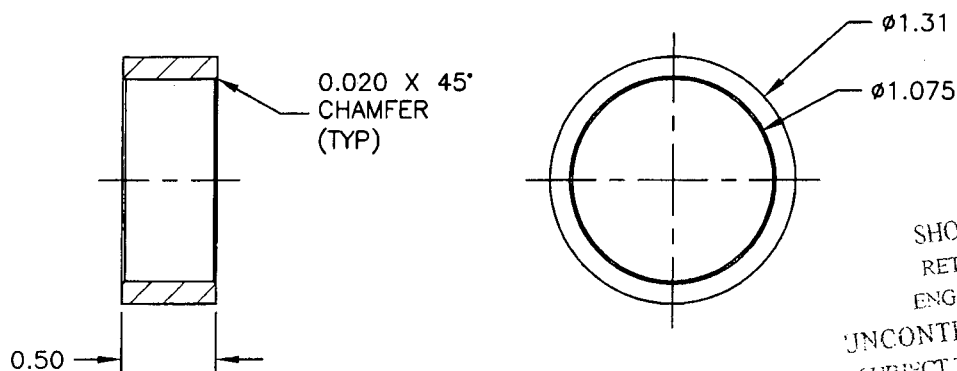
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DATE 07.12.06		TITLE FRAME WELDMENT	SCALE 1:1

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**SECTION A-A**

**D3330-17 HANDLE SOCKET**



**D3330-19 HANDLE RIM**

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**NOTES:**

- 1) MATERIAL: 1010-1025 ROUND BAR STEEL PER MILL-S-7097  
(REF. DART SPEC. M1025TR)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

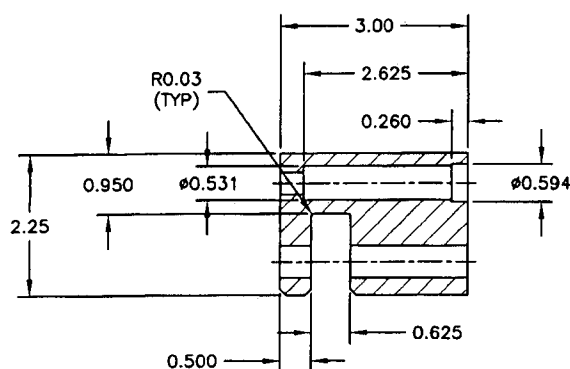
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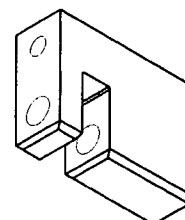
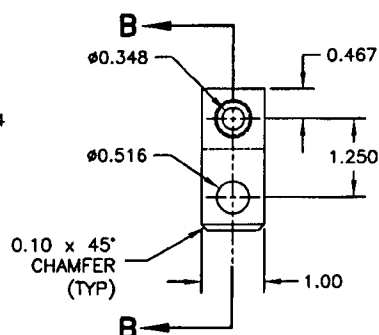


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DATE 07.12.06		TITLE FRAME WELDMENT	SCALE 1:3

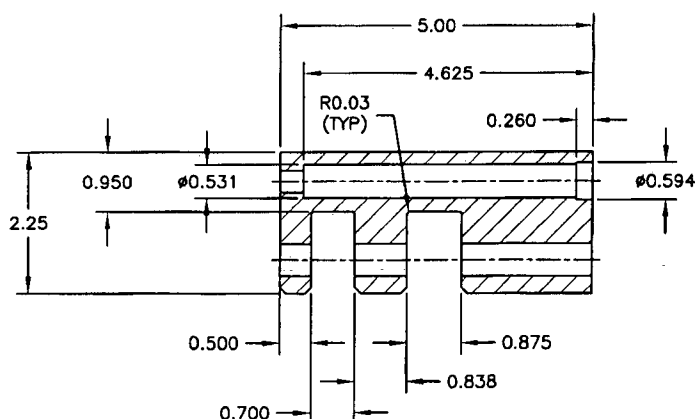
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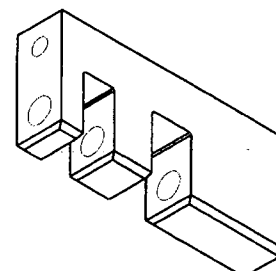
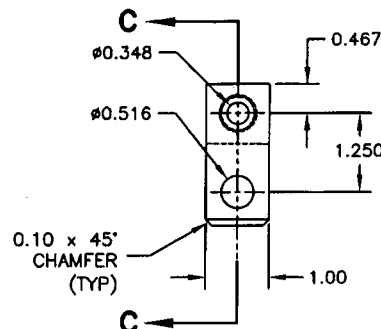
**SECTION B-B**



**D3330-13 SHORT PIN BRACKET**



**SECTION C-C**



**D3330-11 LONG PIN BRACKET**

**NOTES:**

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570, 1.000 THICK STEEL (REF. DART SPEC. M1010-B1.000x02.250)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

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